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EXAMINER

GOLD, AVI M

ART UNIT PAPER NUMBER

2157

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/049,590	Applicant(s) USKELA ET AL.	
	Examiner Avi Gold	Art Unit 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/13/02, 1/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the application filed June 6, 2002. Claims 1-38 are pending. Claims 1-38 represent a controlled multicast.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 6, 15, and 21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation including "buffering data packets the destination address" needs to be clarified.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7, 10-22, and 25-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Satran et al., U.S. Patent No. 6,430,183.

Satran teaches the invention as claimed including transmission networks of the type wherein a plurality of transmitters are transmitting streams of data frames over a broadband channel to a plurality of receivers (see abstract).

Regarding claim 1, Satran teaches a method in a packet-switched network for supplying data packets to receivers (4a-c) belonging to a multicast group, comprising the steps of:

receiving (S21) data packets from a sender (1) (col. 3, lines 31-39, Satran discloses data transmitted from a host computer);

buffering (S22) data packets the destination address of which is a multicast address of a multicast group (col. 4, lines 48-60, Satran discloses the data transmitted being part of a multicast);

determining (S23) the addresses of the receivers (4a-c) of the multicast group indicated by the multicast address and determining receiver-specific parameters (col. 4, lines 48-60, Satran discloses address templates for filtering);

filtering (S24) the multicast data packets accordance with the receiver-specific parameters for each receiver (4a-c) of the multicast group (col. 5, lines 16-35, Satran discloses filtering done with a receiver specific parameter); and

supplying (S25) the filtered multicast data packets to the determined receiver addresses (col. 5, lines 33-35, Satran discloses a filtered data block received at an address).

Regarding claim 2, Satran teaches the method according to claim 1, wherein the receiver-specific parameters indicate a certain content of data packets that is not to be received by the specific receiver (col. 4, lines 48-60).

Regarding claim 3, Satran teaches the method according to claim 1, wherein the receiver-specific parameters indicate a data amount of a certain content in data packets which data amount is not to be received by the specific receiver (col. 7, lines 58-66, Satran discloses a block size that needs to be reached).

Regarding claim 4, Satran teaches the method according to claim 2, wherein the certain content is filtered out in the filtering step (S24) (col. 5, lines 15-43).

Regarding claim 5, Satran teaches the method according to claim 2, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 6, Satran teaches a method in a packet-switched network for supplying data packets to receivers (4a-C) belonging to a multicast group, comprising the steps of:

receiving (S31) data packets from a sender (1) (col. 3, lines 31-39);

buffering (S32) data packets the destination address of which is a multicast address of a multicast group (col. 4, lines 48-60);

determining (S33) the addresses of the receivers (4a-c) of the multicast group indicated by the multicast address and determining receiver-specific parameters (col. 4, lines 48-60);

filtering (S34) the determined addresses in accordance with the receiver-specific parameters (col. 5, lines 16-35); and

supplying (S35) the multicast data packets to the filtered receiver addresses (col. 5, lines 33-35).

Regarding claim 7, Satran teaches the method according to claim 6, wherein the determining step (S33) includes the further step of:

detecting contents and a data amount of data packets, and wherein the filtering step (S34) includes the further step of (col. 4, lines 48-60):

filtering the determined addresses in accordance with the detected results (col. 5, lines 16-35).

Regarding claim 10, Satran teaches the method according to claim 7, wherein the receiver-specific parameters indicate a certain content of data packets that is not to be received by the specific receiver (col. 7, lines 58-66).

Regarding claim 11, Satran teaches the method according to claim 7, wherein the receiver-specific parameters indicate a certain data amount of data packets which is not to be received by the specific receiver (col. 7, lines 58-66).

Regarding claim 12, Satran teaches the method according to claim 10, wherein when the certain content is detected in the detecting step the address of the specific receiver is filtered out in the filtering step (S35) (col. 5, lines 15-43).

Regarding claim 13, Satran teaches the method according to claim 11, wherein when the certain data amount is detected in the detecting step the address of the specific receiver is filtered out in the filtering step (S35) (col. 5, lines 15-43).

Regarding claim 14, Satran teaches the method according to claim 8, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 15, Satran teaches an apparatus packet-switched network for supplying data packets to receivers (4a-c) belonging to a multicast group, comprising:
a routing means for receiving data packets from a sender (1) and for buffering data packets the destination address of which is a multicast address of a multicast group; and

a control means communicating with the routing means (2) for determining the addresses of the receivers (4a-c) of the multicast group indicated by the multicast address and receiver-specific parameters, for designating filters for each receiver (4a-c) in accordance with the receiver-specific parameters and for supplying the determined addresses and designated filters to the routing means (2);

wherein the routing means (2) filters the multicast data packets with the designated filters for each receiver (4a-c) of the multicast group and supplies the filtered multicast data packets to the determined receiver addresses (col. 3, lines 31-39; col. 4, lines 48-60; col. 5, lines 15-43).

Regarding claim 16, Satran teaches the apparatus according to claim 15, where the receiver-specific parameters indicate a certain content of data packets that is not to be received by the specific receiver (col. 7, lines 58-66).

Regarding claim 17, Satran teaches the apparatus according to claim 15, wherein the receiver-specific parameters indicate a data amount certain content in data packets which data amount is not to be received by the specific receiver (col. 7, lines 58-66).

Regarding claim 18, Satran teaches the apparatus according to claim 16, wherein the certain content is filtered out by the routing means (2) (col. 5, lines 15-43).

Regarding claim 19, Satran teaches the apparatus according to claim 16, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 20, Satran teaches the apparatus according to claim 15, wherein the control means (3) determines the receiver addresses and receiver-specific parameters by means of tables stored in the control means (col. 5, lines 26-35, Satran discloses an address field stored in a bitmap).

Regarding claim 21, Satran teaches an apparatus packet-switched network for supplying data packets to receivers (4a-c) belonging a multicast group, comprising:

a routing means (2) for receiving data packets from a sender (1) and for buffering data packets the destination address of which is a multicast address of a multicast group; and

a control means (3) communicating with the routing means (2) for determining the addresses of the receivers (4a-c) of the multicast group indicated by the multicast address and receiver-specific parameters, for designating filters for each determined receiver address in accordance with the receiver-specific parameters and for supplying the determined addresses and designated filters to the routing means (2);

wherein the routing means (2) filters the determined addresses with the designated filters for each receiver (4a-c) of the multicast group and supplies the

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multicast data packets to the filtered receiver addresses (col. 3, lines 31-39; col. 4, lines 48-60; col. 5, lines 15-43).

Regarding claim 22, Satran teaches the apparatus according to claim 21, wherein the routing means detects contents and a data amount of data packets and communicates the results to the control means (3) which designates the filters also in accordance with these results (col. 7, lines 58-66).

Regarding claim 25, Satran teaches the apparatus according to claim 22, wherein the receiver-specific parameters indicate a certain content of data packets that is not to be received by the specific receiver (col. 7, lines 58-66).

Regarding claim 26, Satran teaches the apparatus according to claim 22, wherein the receiver-specific parameters indicate a certain data amount of data packets which is not to be received by the specific receiver (col. 7, lines 58-66).

Regarding claim 27, Satran teaches the apparatus according to claim wherein when the certain content is detected by the routing means the address of the specific receiver is filtered out by the routing means (2) (col. 7, lines 58-66).

Regarding claim 28, Satran teaches the apparatus according to claim 26, wherein when the certain data amount is detected by the routing means (2) the address of the specific receiver is filtered out by the routing means (2) (col. 7, lines 58-66).

Regarding claim 29, Satran teaches the apparatus according to claim 23, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 30, Satran teaches the apparatus according to claim 21, wherein the control means (3) determine the receiver addresses and receiver-specific parameters by means of tables stored in the control means (col. 5, lines 26-35).

Regarding claim 31, Satran teaches the method according to claim 3, wherein the certain content is filtered out in the filtering step (S24) (col. 5, lines 15-43).

Regarding claim 32, Satran teaches the method according to claim 3, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 33, Satran teaches the method according to claim 10, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 34, Satran teaches the method according to claim 11, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 35, Satran teaches the apparatus according to claim 17, wherein the certain content is filtered out by the routing means (2) (col. 5, lines 15-43).

Regarding claim 36, Satran teaches the apparatus according to claim 17, wherein the certain content is filtered out by the routing means (2) (col. 5, lines 15-43).

Regarding claim 37, Satran teaches the apparatus according to claim 25, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Regarding claim 38, Satran teaches the apparatus according to claim 26, wherein the receiver-specific parameters are dependent on receiver conditions (col. 5, lines 15-43).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8, 9, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satran further in view of Haggerty et al., U.S. Patent No. 6,331,983.

Satran teaches the invention substantially as claimed including transmission networks of the type wherein a plurality of transmitters are transmitting streams of data frames over a broadband channel to a plurality of receivers (see abstract).

As to claims 8, 9, 23, and 24, Satran teaches the method and apparatus of claims 6 and 21.

Satran fails to teach the limitation further including a time at which no data packets are to be received or filtered.

However, Haggerty teaches a method and apparatus for establishing a connection path for multicast traffic through a switched network, and across router/switch boundaries, which conserves network bandwidth (see abstract). Haggerty teaches the use of a time-to-live (TTL) (col. 2, lines 9-15; col. 4, lines 34-54).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Satran in view of Haggerty to use a time at which no data packets are to be received or filtered. One would be motivated to do so because it would allow for controlled distribution of multicast packets (col. 2, lines 3-5).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,055,364 to Speakman et al., because it discloses content-based filtering of multicast information.

U.S. Pat. No. 5,933,605 to Kawano et al., because it discloses multicast messages filtered based on message content.

U.S. Pat. No. 6,175,875 to Stapleton et al., because it discloses multicast filtering.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002. The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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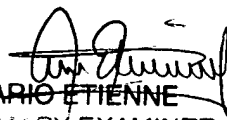
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Avi Gold

Patent Examiner

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AMG


ARIO ETIENNE
PRIMARY EXAMINER